

IN THE CLAIMS

Please cancel without prejudice claims 26, 30, 34, and 43 as indicated below.

Please amend claims 1, 4, 7, 37, and 44-45 as indicated below.

1. (Currently Amended) A method comprising:

performing a refinement coding pass to bit-planes of a code block to create refinement bits; ~~wherein the refinement bits are generated based on bits from coefficients that became significant in a significance propagation pass of a previous bit-plane;~~

identifying a target area of the refinement bits of the code block that is designated to maintain a predetermined quality of the target area; and

setting refinement bits to the more probable symbol (MPS) by setting the refinement bits of the code block that do not effect the predetermined quality of the target area to the MPS, while using actual values for the refinement bits that effect the predetermined quality of the target area, wherein the refinement bits set to the MPS are quantized as a result of setting refinement bits to the MPS,

wherein the target area comprises text in a background image, wherein the refinement bits that are set to MPS are those that do not effect the text of the background image for the last bitplane, while using the actual values for the refinement bits that effect the text of the background image.

2. (Previously Presented) The method defined in Claim 1 wherein only a portion of the refinement bits in a code block are set to the MPS, and wherein the portion of the refinement

bits set to the MPS is transmitted having a number of bits different than a number of bits of a remaining portion of the refinement bits.

3. (Previously Presented) The method defined in Claim 1 wherein setting refinement bits to the MPS is performed to implement non-uniform quantization step sizes, wherein the refinement bits set to the MPS are quantized to a value different from values of the refinement bits without being set to the MPS within the code block.

4. (Currently Amended) An apparatus comprising:

means for performing a refinement coding pass to bit-planes of a code block to create refinement bits, ~~wherein the refinement bits are generated based on bits from coefficients that became significant in a significance propagation pass of a previous bit plane;~~

means for identifying a target area of the refinement bits of the code block that is designated to maintain a predetermined quality of the target area; and

means for setting refinement bits to the more probable symbol (MPS) including means for setting the refinement bits of the code block that do not effect the predetermined quality of the target area to the MPS, while using actual values for the refinement bits that effect the predetermined quality of the target area, wherein the refinement bits set to the MPS are quantized as a result of setting refinement bits to the MPS,

wherein the target area comprises text in a background image, wherein the refinement bits that are set to the MPS are those that do not effect the text of the background image for the last bitplane, while using the actual values for the refinement bits that effect the text of the background image.

5. (Previously Presented) The apparatus defined in Claim 4 wherein only a portion of the refinement bits in a code block are set to the MPS, and wherein the portion of the refinement bits set to the MPS is transmitted having a number of bits different than a number of bits of a remaining portion of the refinement bits.

6. (Previously Presented) The apparatus defined in Claim 4 wherein setting refinement bits to the MPS is performed to implement non-uniform quantization step sizes, wherein the refinement bits set to the MPS are quantized to a value different from values of the refinement bits without being set to the MPS within the code block.

7. (Currently Amended) An article of manufacture comprising at least one recordable media storing executable instructions thereon which, when executed by a processing device, cause the processing device to:

perform a refinement coding pass to bit-planes of a code block to create refinement bits, ~~wherein the refinement bits are generated based on bits from coefficients that became significant in a significance propagation pass of a previous bit plane,~~

identify a target area of the refinement bits of the code block that is designated to maintain a predetermined quality of the target area, and

set refinement bits to the more probable symbol (MPS) by setting the refinement bits of the code block that do not effect the predetermined quality of the target area to the MPS, while using actual values for the refinement bits that effect the predetermined quality of the target area, wherein the refinement bits set to the MPS are quantized as a result of setting refinement bits to the MPS,

wherein the target area comprises text in a background image, wherein the refinement bits that are set to MPS are those that do not effect the text of the background image for the last bitplane, while using the actual values for the refinement bits that effect the text of the background image.

8. (Previously Presented) The article of manufacture defined in Claim 7 wherein only a portion of the refinement bits in a code block are set to the MPS, and wherein the portion of the refinement bits set to the MPS is transmitted having a number of bits different than a number of bits of a remaining portion of the refinement bits.

9. (Previously Presented) The article of manufacture defined in Claim 7 wherein setting refinement bits to the MPS is performed to implement non-uniform quantization step sizes, wherein the refinement bits set to the MPS are quantized to a value different from values of the refinement bits without being set to the MPS within the code block.

10. – 26. (Canceled)

27. (Previously Presented) The method defined in Claim 1, wherein the refinement bits are set to the MPS to reduce distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

28. (Previously Presented) The method defined in Claim 1, wherein the refinement bits are set to the MPS to minimize distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

29. – 30. (Canceled)

31. (Previously Presented) The apparatus defined in Claim 4, wherein the refinement bits are set to the MPS to reduce distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

32. (Previously Presented) The apparatus defined in Claim 4, wherein the refinement bits are set to the MPS to minimize distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

33. – 34. (Canceled)

35. (Previously Presented) The article of manufacture defined in Claim 7, wherein the refinement bits are set to the MPS to reduce distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

36. (Previously Presented) The article of manufacture defined in Claim 7, wherein the refinement bits are set to the MPS to minimize distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

37. (Currently Amended) A method, comprising:

identifying a target region of refinement bits of a code block generated from a magnitude refinement pass ~~based on bits from significant coefficients of a significance propagation pass of a previous bit plane~~; and

setting one or more refinement bits of the code block that do not significantly effect resolution of the target region to a more probable symbol (MPS), such that the one or more refinement bits are quantized with respect to other refinement bits that effect the resolution of the target region,

wherein the target region comprises text in a background image, wherein the refinement bits that are set to MPS are those that do not effect the text of the background image for the last bitplane, while using the actual values for the refinement bits that effect the text of the background image.

38. (Previously Presented) The method of claim 37, wherein the refinement bits that effect the resolution of the target region are set using actual values of the respective refinement bits.

39. (Previously Presented) The method of claim 37, wherein the refinement bits set to the MPS are quantized to a value different from values of the refinement bits without being set to the MPS within the code block.

40. (Previously Presented) The method of claim 37, wherein the portion of the refinement bits set to the MPS is transmitted having a number of bits different than a number of bits of a remaining portion of the refinement bits.

41. (Previously Presented) The method of claim 37, wherein the refinement bits are set to the MPS to reduce distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

42. (Previously Presented) The method of claim 37, wherein the refinement bits are set to the MPS to minimize distortion effects on a current frame due to a change of a rate distortion of the corresponding refinement bits of a previous frame.

43. (Canceled)

44. (Currently Amended) An article of manufacture comprising at least one recordable media storing executable instructions thereon which, when executed by a processing device, cause the processing device to:

identify a target region of refinement bits of a code block generated from a magnitude refinement pass based on bits from significant coefficients of a significance propagation pass of a previous bit plane, and

set one or more refinement bits of the code block that do not significantly effect resolution of the target region to a more probable symbol (MPS), such that the one or more refinement bits are quantized with respect to other refinement bits that effect the resolution of the target region,

wherein the target region comprises text in a background image, wherein the refinement bits that are set to MPS are those that do not effect the text of the background image for the last bitplane, while using the actual values for the refinement bits that effect the text of the background image.

45. (Currently Amended) An apparatus, comprising:

means for identifying a target region of refinement bits of a code block generated from a magnitude refinement pass based on bits from significant coefficients of a significance propagation pass of a previous bit plane; and

means for setting one or more refinement bits of the code block that do not significantly effect resolution of the target region to a more probable symbol (MPS), such that the one or more refinement bits are quantized with respect to other refinement bits that effect the resolution of the target region,

wherein the target region comprises text in a background image, wherein the refinement bits that are set to MPS are those that do not effect the text of the background

image for the last bitplane, while using the actual values for the refinement bits that effect the
text of the background image.